

Soil Contingency Plan



Dated:

June 26, 2006

Site:

**Humboldt Area Foundation
373 Indianola Road
Bayside, California 95524**

LOP # 12787

Prepared for:

Humboldt Area Foundation

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FIGURE

FIGURE 1:REMAINING SOIL IMPACT

1.0 INTRODUCTION

This Soil Contingency Plan was prepared by SounPacific Environmental Services (SounPacific) for the Humboldt Area Foundation (HAF) using previous studies provided by SounPacific, file review conducted at Humboldt County Department of Health and Human Services: Division of Environmental Health (HCDEH) and information provided by the property owner. Humboldt Area Foundation (the Site) is located at 373 Indianola Road, Bayside, California (Figure 1).

2.0 SITE HISTORY

In February 2002, during construction activities, a 250-gallon UST was discovered and removed from a location adjacent to the HAF office building. Following removal of the UST, soil samples were collected from the west and east walls of the excavation and analyzed for Total Petroleum Hydrocarbons as diesel (TPHd) and TPH as motor oil (TPHmo), with a third soil sample collected from the bottom of the excavation. Laboratory analytical of the soil samples from the excavation walls reported the presence of TPHd (< 3,000 ppm) and TPHmo (< 400 ppm). Total lead was reported 5.6 ppm, which is assumed to be the background level. Also, a groundwater sample was collected from the UST pit and was analyzed for TPHd and TPHmo. Laboratory analytical results indicated the presence of TPHd and TPHmo contamination in the groundwater. The laboratory narrative for both the soil and groundwater samples suggests that the constituent detected as TPHmo was likely the heavier end of the material in the diesel range, rather than weathered motor oil.

In October 2003, a subsurface investigation was conducted during which four (4) hand-augured soil borings (B-1 through B-4) were drilled to depths of ten (10) feet bgs in the vicinity of the former UST. Soil samples from the borings indicated that most of the soil contamination identified in the boreholes was relatively low to non-detect with only borings B-3 and B-4 detecting any contamination. Boring B-4, located closest to the excavation pit, reported the highest contamination concentration with TPHd being detected at 3,200 ppm.

In October 2004, petroleum impacted soils were excavated; however, as the excavation progressed, a previously unknown UST was discovered. The UST was removed; although no compliance sampling was conducted, due to the ongoing excavation activities and planned sampling. Following the removal of the UST, excavation was continued; however, although soil contamination was still evident, excavation had to be discontinued due to the slope of the topography and to preserve the structural integrity of the adjacent office building. When excavation activities could not be continued soil samples were collected from the excavation floor and sidewalls, and submitted for laboratory analysis. Analysis of these samples confirmed that some contaminated soil was left in place due to structural integrity issues, that did not allow for the removal of this soil. The contaminated soil (23.38 tons) was stockpiled and later transported and disposed at Bio Industries, Inc., in Red Bluff, California.

To assess the level and extent of any groundwater contamination, in April 2005 three temporary wells were installed in the suspected downgradient direction from the area of the USTs. Groundwater recovery rates in the wells were very slow, allowing groundwater samples to be collected from only two of the temporary wells. The laboratory analysis of the two samples detected low levels of the long chained petroleum hydrocarbons, although no aromatic hydrocarbons, i.e. benzene, were reported.

In a letter from HCDEH dated September 12, 2005, site closure was granted based on the findings of the investigations and the past removal of all accessible impacted soil. Site closure was granted based on the following facts:

- Impacted soil appeared to be restricted to the area directly adjacent to the USTs. Some residual petroleum hydrocarbons remain in the soil; however, the removal of the second UST and its contents and the majority of the impacted soil, indicates that there is minimal secondary source material remaining under the existing structure.
- The contaminated soil that remains in-place is predominantly beneath or adjacent to the HAF building (Figure 1) and further removal of the contaminated soil is not practical.

- The limited amount of groundwater observed during the activities at the Site, indicates that the migration and potential impact of groundwater is limited. Impacted groundwater at the Site, if actually present, is at low enough concentrations to utilize natural attenuation as a final passive remedial action for the clean up of this Site.
- A sensitive receptor survey indicates that the nearest receptor is greater than 200 feet downgradient from the former source of contamination.

However, as part of the site closure process, a Soil Management Contingency Plan was requested by the HCDEH.

3.0 SOIL MANAGEMENT CONTINGENCY PLAN

Based on the distance of migration of petroleum hydrocarbons away from the USTs observed during excavation, which was generally less than ten (10) feet, it is estimated, that less than 10 cubic yards of soil contaminated with petroleum hydrocarbons remain in inaccessible locations beneath currently existing structures. The petroleum hydrocarbons are long-chained, heating-oil type hydrocarbons, and as a result are considered to be generally immobile. In addition, they are primarily located beneath a building which acts as a cap, preventing or limiting any rain water infiltration through the impacted soil. As long as the building remains, the residual petroleum hydrocarbons in the soil pose little or no threat to groundwater.

In the event the building is removed from the Site, or in the event the building is being remodeled to the extent that the impacted area becomes exposed and accessible, the HAF has agreed that it will hire the appropriate entities to remove the residual impacted soil from the Site. The HAF has further agreed that sufficient soil samples will be collected and analyzed at the time of removal to confirm that removal of any accessible impacted soil is complete according to the standards in effect at the time of the removal.

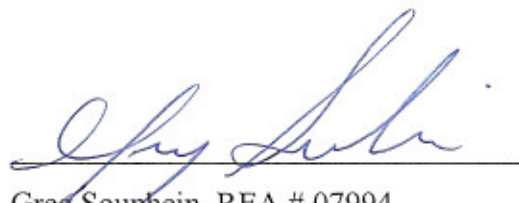
CERTIFICATION

This report was prepared under the direct supervision of a California registered geologist at SounPacific. All information provided in this report including statements, conclusions and recommendations are based solely upon field observations and analyses performed by a state-certified laboratory. SounPacific is not responsible for laboratory errors.

SounPacific promises to perform all its work in a manner that is currently used by members in similar professions working in the same geographic area. SounPacific will do what ever is reasonable to ensure that data collection is accurate. Please note however, that rain, buried utilities, and other factors can influence groundwater depths, directions and other factors beyond what SounPacific could reasonably determine.

SounPacific

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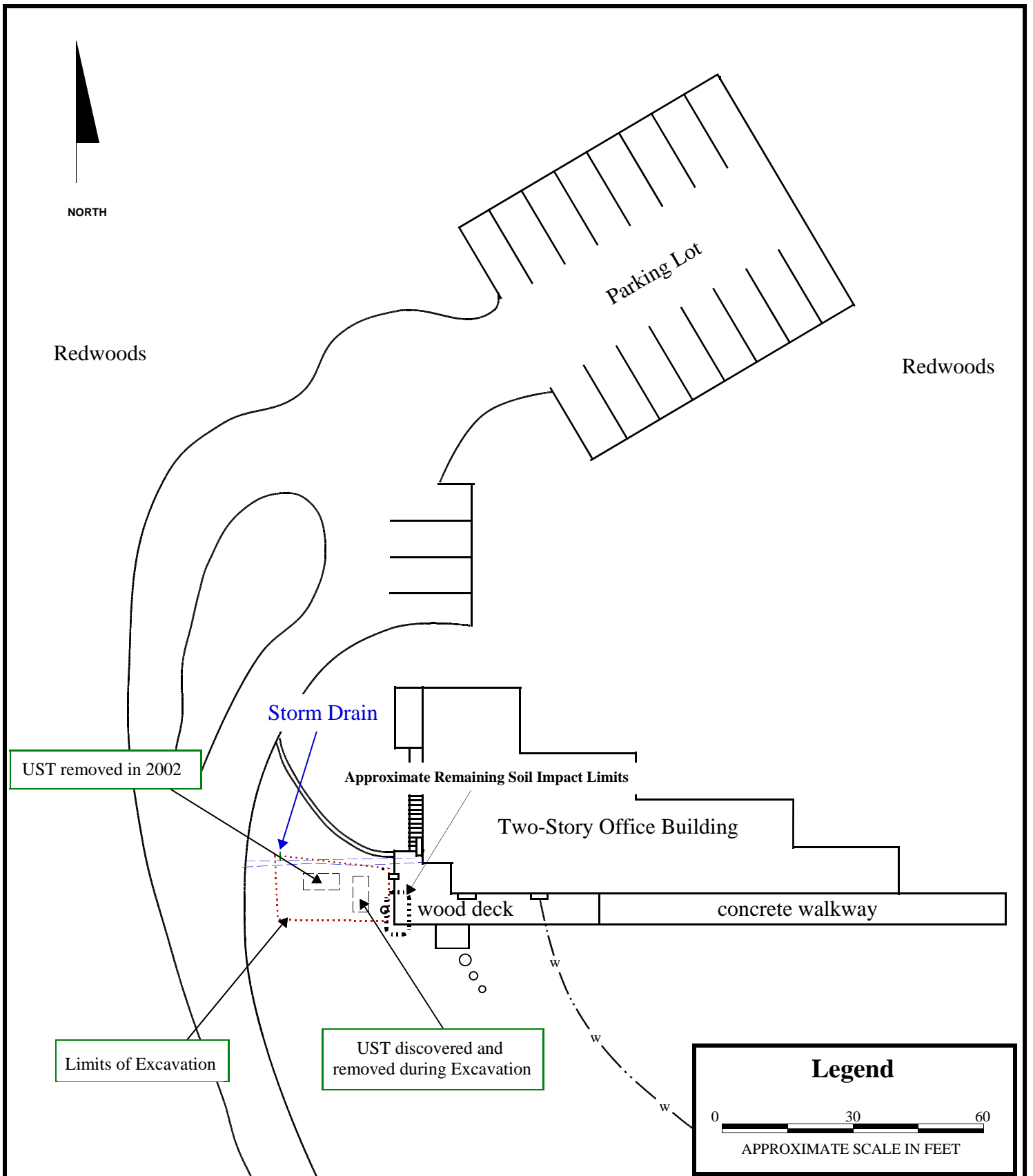


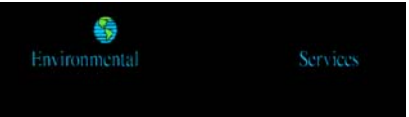
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Figures



	REMAINING SOIL IMPACT LIMITS			Figure
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